What Is...

IMS Learner Information Packaging?

by Scott Wilson and Peter Rees Jones

In Brief

What is LIP?

The IMS Learner Information Package (LIP) is a specification for a standard means of recording information about learners.

LIP is designed to allow information about learners, including their progress to date and awards received, to be transferred between different software applications.
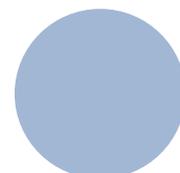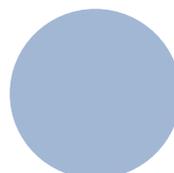
Since it was released, the LIP specification has been adapted for use within the UK HE Sector by the Centre for Recording Achievement and CETIS, resulting in a mapping of the UK HE Transcript to LIP in order that essential student data can be exchanged electronically. Universities UK has recommended the minimum data set about formal achievement that all Higher Education Institutions should produce in transcripts for their students in its Guidelines for HE Progress Files. These also suggest that the Transcript may be combined with a Personal Development Record owned by the learner.

Unlike degree certificates, the Transcript provides a much more fine-grained picture of a learner's achievement which, alongside the Personal Development Record, will present a Learner Profile. This will be an important element within a learner's lifelong record of achievement .

What is LIP for?

You can use LIP for a number of applications:

• You can move learner information between institutions when students transfer courses.

• You can produce a lifelong record of a learner's achievement

• You can provide information about achievement to employers (replacing existing certificates)

• You can use it as part of the foundation for a Personal Development Planning process.

• You can store information about learner preferences to support widening participation for learners with disabilities.

Technical Details

How LIP works

LIP uses XML to record information about learners. XML uses 'tags', rather like HTML, to say what each piece of information in the record means, for example:

```
<Institution>University of Wales,
Bangor</institution>
```

Each tag has a meaning defined in both the IMS specification and the UK HE Transcript, allowing you to map the fields contained in your existing student record system to the LIP tags. (There's a 'real' example of XML from a LIP record on the page opposite).

Requirements

One of the key requirements for an institution wanting to use LIP is to be recording information about learner progress in sufficient detail to be able to generate a meaningful transcript. The HE Transcript document tells you more about this.

To produce a LIP document requires only that you can output your records of achievement in the correct XML structure. This needs some basic understanding of how to use XML, but much more important is an understanding of what the data in both the student record system and the LIP specification actually means.

To read LIP documents requires creating software that *parses* (interprets the meaning of) the LIP record and takes the appropriate action in your student record system. Your software vendor should be able to help with this.

To send LIP records to other institutions you can use any means agreed between you, including FTP (File Transfer Protocol), SOAP (Simple Object Access Protocol), and HTTP (HyperText Transfer Protocol).

We recommend that regardless of the protocol you choose that you make use of some form of encryption and use a secure connection for transmitting the data. Information in LIP records is very sensitive and should be kept secure.

Related specifications

IMS also produce an Enterprise specification, which is designed to transfer groups of learners between systems. This uses a much "lighter" definition of a learner, suitable (for example) for transmitting enrolments to a VLE. There is also an IMS Reusable Competency Definition specification that provides a means of relating information about learners to competency frameworks.

Implementations

JISC projects using LIP

The first projects funded by JISC to use the LIP specification are part of the Managed Learning Environments Programme.

SHELL is a project in South-West England involving the University of Plymouth and regional FE colleges. The project involves using LIP records to allow students to take courses and modules from any of the member institutions and receive credit as appropriate. The aim is to increase choice and mobility for the learner, and allow for greater cooperation between HE and FE institutions in the region.

NIIMLE is a similar project, this time based in Northern Ireland and involving a larger number of partners.

UK Transcript Mapping

Following consultation, a version 1.1 mapping of the UK HE Transcript to LIP will be published in November 2002. This will also contain an illustration of the SHELL Transcript. This example will be of a multi-institutional Transcript covering achievement in both HE and FE. The development and piloting of electronic transcripts across the sectors will be a key theme of the new work which began in September 2002.

An integral part of this work will be consultation on the specification of learner owned Personal Development Records which, together with the institutionally owned Transcript, will form a Learner Profile. For this reason, this work will be reported back to the community formally in November 2003 as UK Learner Profile version 1.2.1 (Specification of Transcript/EDS and PDR mapped to LIP). The european Diploma Supplement (EDS) covering FE and HE will be a secondary theme of this work and involves mapping and piloting the use of the additional fields necessary for the UK Transcript to fulfil the requirements of the Bologna declaration.

UK Learner Profile version 1.1 and the consultation exercise to develop UK Learner Profile version 1.2.1 will be available on the CETIS website or by contacting Peter Rees Jones (P.R.Jones@adm.leeds.ac.uk)

Other examples

As yet there are very few implementations of LIP, and few vendors that are supporting it in their products. This is sure to change, however, as more universities begin recording the levels of information needed to support LIP and the HE Transcript.

Example of LIP in action

This is an example of a small portion of a LIP record being used to record preference information about the learner, in this case language proficiency.

LIP version 1.1, due for release in early 2003, can be used to record other preference information, for example to store mode of presentation preferences for learners with disabilities.

```
<language>
        <typename>
                <tysource sourcetype="imsdefault"/>
        <tyvalue>German</tyvalue>
        </typename>
        <contenttype>
                <referential>

                        <indexid>language_01</indexid>
                </referential>
        </contenttype>
        <proficiency profmode="OralSpeak">Excellent</proficiency>
        <proficiency profmode="OralComp">Excellent</proficiency>
        <proficiency profmode="Read">Good</proficiency>
        <proficiency profmode="Write">Poor</proficiency>
</language>
```

Resources

People, products and services

The CETIS LIP Special Interest Group (LIPSIG) provides a good starting point for learning more about LIP and the HE Transcript, and finding other UK practitioners interested in it. For more information, contact Peter Rees Jones (prj@leeds.ac.uk).

Resources on the Internet

The LIP Specification is published on the IMS Global Learning Consortium website:

http://www.imsglobal.org

The HE Transcript is published on the CETIS website:

http://www.cetis.ac.uk/lib/media/pf.pdf

LIPSIG (LIP Special Interest Group) has a website at:

http://lipsig.cetis.ac.uk

The main CETIS website contains useful articles on all the IMS specifications, including LIP:

http://www.cetis.ac.uk/profile

The JISC 1/01 programme web page describes both the SHELL and NIIMLE projects:

http://www.jisc.ac.uk/mle/01-01

About this guide

This guide was produced by CETIS, the Centre For Educational Technology Interoperability Standards. For more information on CETIS, visit http://www.cetis.ac.uk.

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About CETIS

CETIS is the JISC's Centre For Educational Technology Interoperability Standards. For more information visit the CETIS website at http://www.cetis.ac.uk/

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